9 MEN MORRIS GAME

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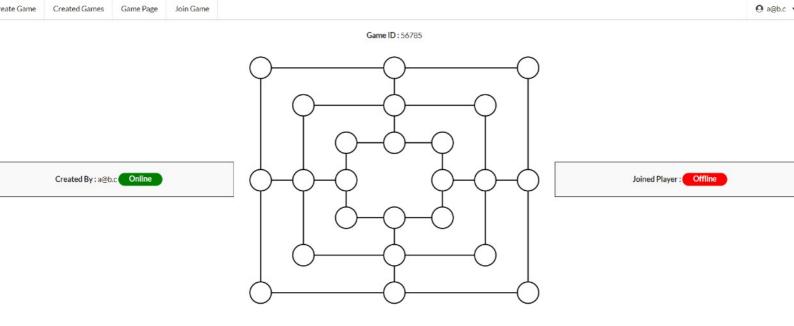
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Overview

SSD Project - 9 Men Morris Game



Nine Men's Morris is an ancient strategy board game that dates back to antiquity. The game is also known by various other names, such as "Mill," "Merels," or "Merrills." It's a two-player game that involves skillful placement of pieces on a grid.

Objective

The primary goal of Nine Men's Morris is to form a mill, which is a row of three of one's own pieces along a straight line on the board. This allows the player to remove one of the opponent's pieces from the board. The player who reduces the opponent to fewer than three pieces or blocks the opponent's pieces so they cannot move is the winner.

The game is played on a board with three concentric squares connected by lines, forming a grid of 24 points.

Game Play

Players take turns placing their pieces on empty points on the board.

Once all pieces are on the board, players take turns moving one of their pieces along a marked line to an adjacent empty point.

When a player forms a mill (three of their pieces in a row), they can remove one of the opponent's pieces from the board.

If a player is reduced to three pieces, they can move to any empty point on the board during their turn.

Winning Condition:

A player wins by either reducing the opponent to fewer than three pieces or by strategically blocking the opponent's pieces so they cannot move.

Nine Men's Morris is a game that combines strategic planning with tactical maneuvering, making it a challenging and engaging pastime that has stood the test of time. The game's simplicity makes it easy to learn, but mastering it requires foresight and skill.

Use Case:

Player 1: The individual initiating and interacting with the Nine Men's Morris game as the first player.

Player 2: The second player engaging in the game.

Game Initiation:

The players start the game, and the initial game state is displayed on the board.

Player 1 makes the first move by placing one of their pieces on an empty point on the board.

Turn-based Gameplay:

Player 1 and Player 2 take turns placing their pieces on empty points on the board until all pieces are placed.

Each player aims to strategically position their pieces to create mills (three in a row).

Movement Phase:

Once all pieces are on the board, the game enters the movement phase.

Players take turns moving one of their pieces to an adjacent empty point per turn.

Mill Formation and Piece Removal:

As players strategically place their pieces, they attempt to form a mill (three pieces in a row).

When a mill is formed, the player is allowed to choose one of the opponent's pieces to remove from the board.

Winning Condition Check:

The game continuously checks for a winning condition after each move.

A player wins by reducing the opponent to fewer than three pieces or by strategically blocking the opponent's pieces.

Details of Logic:

We maintain an array of 24 numbers, each denoting a circle, and in which we store 0, 1 or 2 depending on whether the tile is blue, red, or empty.

All the functions that are required will be performed on the array.

If the player forms a line of 3 consecutive circles, he will be given a chance to remove a circle of opponent.

Create room and join room functionality.

The backend api is called for every second, and data is fetched from database.

A players last api hit time will be stored for checking the online status of that player.